REMARKS

Claims 1, 5-9, and 11-36 are all the claims presently pending in the application. Applicants have not amended the claims by the present Amendment.

Applicants believe that entry of this Amendment is proper because Applicants have not presented any new issues to the Examiner that would require further consideration and/or search. Indeed, the Applicants have merely amended the Specification in accordance with an alleged informality.

Claims 1, 14-16, 31, and 32 stand rejected under 35 U.S.C. § 101 as allegedly being inoperative and lacking utility. Claims 31-36 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Claims 1, 5-9 and 11-36 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Borza (U.S. Patent No. 6,446,210) in view of Kharon (U.S. Patent No. 6,487,662).

Applicants respectfully traverse these rejections in the following discussion.

I. THE CLAIMED INVENTION

The claimed invention provides a method and system of processing semiotic data that allows use of the data without being a threat to privacy and that prevents misuse of such data, without significantly altering the accuracy and sensitivity of the identification process (e.g., see specification at page 3, lines 9-14).

For example, the claimed invention compares encrypted data against stored encrypted data while at the same time ensuring that unencrypted data is not available or retrievable under the condition that the data might be slightly different from the template. That is, the claimed invention determines whether P is close to P' by comparing only h(P) with h(P'). Thus, in

contrast to conventional methods, the claimed invention compares encrypted data against an encrypted template under the possibility that the data might be slightly different from the template (e.g., "close" to the data) (e.g., see specification at page 16, lines 12-17, and pages 17-20).

II. THE REJECTIONS UNDER 35 U.S.C. § 101

A. The Alleged Inoperativeness of the Claimed Invention

Applicants maintain that the claimed invention of claims 1, 14-16, 31, and 32 is operative and does not lack utility.

Specifically, Applicants maintain the traversal arguments submitted in the Appeal Brief filed on September 7, 2006, the Amendment Under 37 C.F.R. 1.111 filed on January 16, 2007, and the Corrected Appeal Brief filed on February 20, 2007. For brevity, Applicants have not repeated the traversal arguments previously of record herein.

Furthermore, Applicants provide the following comments specifically directed to the Examiner's Response to Arguments included in the Office Action dated June 22, 2007.

The Examiner alleges, "the Applicant fails to define/redefine the term hash function to coincide with a particular method disclosed in the specification. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine the claim term." (See Office Action dated June 22, 2007 at page 3). Furthermore, the Examiner alleges "Applicant fails to meet the requirements of redefining a term as set forth in the MPEP § 2106. In order to define/redefine a term, the Applicant must do so "with reasonable

clarity, deliberateness, and precision" and must "set out his uncommon definition in some manner within the patent disclosure" so as to give one of ordinary skill in the art notice of the change" in meaning." (See Office Action dated June 22, 2007 at page 4).

Applicants respectfully submit, however, that Applicants are not redefining the term "hash", as alleged by the Examiner. That is, Applicants are using the term hash function as defined in, for instance, the book "Handbook of Applied Cryptography", which defines a hash function as a function, which is near-collision resistant. As previously submitted, comparing the hashes by themselves will not work. An important feature of the claimed invention is the addition of other processing steps, which allow comparison of similar processed biometric data and which compare the resulting hashes.

In particular, the function h in the claims is not a hash function and the language in the claims did not specify that h is a cryptographic hash function. For instance, in claim 15, the use of a secure hash function is only one part of the algorithm to compute h.

The Examiner has mistakenly assumed that the h(P) in the disclosure is equal to the cryptographic hash of the biometric data P.

Accordingly, in view of the previously submitted traversal arguments and the arguments provided herein, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

B. The Statutory Subject Matter Rejection

The Examiner alleges that the claimed invention of claims 31-36 is directed to non-statutory subject matter. Specifically, the Examiner alleges "[t]he Office's current position is that claims involving signals encoded with functional descriptive material do not fall within any

of the categories of patentable subject matter set forth in 35 U.S.C. § 101, and such claims are therefore ineligible for patent protection." (See Office Action dated June 22, 2007 at page 9).

Applicants respectfully submit, however, that claims 31-36 are not directed to and do not recite an electromagnetic signal (as addressed in Annex IV(c) of the Interim Guidelines on Patentability).

That is, claims 31-36 are directed to a "computer-readable medium". Indeed, M.P.E.P. § 2106 clearly sets forth that computer-related product claims are statutory subject matter. That is, "[i]f a claim defines a useful machine or manufacture by identifying the physical structure or the machine or manufacture in terms of its hardware or hardware and software combination, it defines a statutory product".

Along these lines, the Court in *In re Beauregard* upheld a computer program as patentable subject matter because it was claimed in terms of an article of manufacture as contained on a floppy disk (see *In re Beauregard*, 53 F.35 1583 (Fed. Cir. 1995). Beauregard claims protect computer-related media encoded with a computer program because such media are viewed as computer elements that define structural and functional interrelationships between the computer program and the computer. Thus, Beauregard claims define statutory subject matter as long as the claim language defines a relationship between the encoded program and a computer.

Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

III. THE PRIOR ART REFERENCES

The Examiner maintains that the alleged combination of Borza and Kharon teaches the claimed invention of claims 1, 5-9, and 11-36.

Applicants maintain that the alleged combination of Borza and Kharon does not render obvious the claimed invention of claims 1, 5-9, and 11-36.

Specifically, Applicants maintain the traversal arguments submitted in the Appeal Brief filed on September 7, 2006, the Amendment Under 37 C.F.R. 1.111 filed on January 16, 2007, and the Corrected Appeal Brief filed on February 20, 2007. For brevity, Applicants have not repeated the traversal arguments previously of record herein.

Furthermore, Applicants provide the following comments specifically directed to the Examiner's Response to Arguments included in the Office Action dated June 22, 2007.

The Examiner alleges, "*Borza* discloses determining whether h(P) is close to h(P'), without having to be identical matches, when comparing encrypted samples to encrypted templates, and the rejection should be maintained." (See Office Action dated June 22, 2007 at page 5). The Examiner, however, is clearly incorrect.

That is, Borza merely discloses comparing biometric data P, not the privacy protected version of the biometric data h(P), which is recited in the claimed invention (e.g., see Borza at column 16, lines 19-37 and Figure 13). Borza does not compare encrypted biometric data. For example, in column 6, lines 19-21 of Borza, the encrypted data is first decrypted before comparison, so in fact the unencrypted biometric data is compared.

Furthermore, the Examiner alleges, "extracting subsets of data and comparing encrypted subsets of data, are not recited in all of the rejected independent claims." (See Office Action dated June 22, 2007 at page 7). Applicants respectfully submit, however, that these features are

recited in at least dependent claim 17 and Applicants comments are therefore relevant to the claimed invention.

Accordingly, in view of the previously submitted traversal arguments and the arguments provided herein, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

IV. CONCLUSION

Applicants have amended the Specification in a manner believed fully responsive to the Examiner's objection.

In view of the foregoing, Applicants submit that claims 1, 5-9, and 11-36, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. Applicants respectfully request the Examiner to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, Applicants respectfully request the Examiner to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

Applicants hereby authorize the Commissioner to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Respectfully Submitted,

Date: August 22, 2007

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